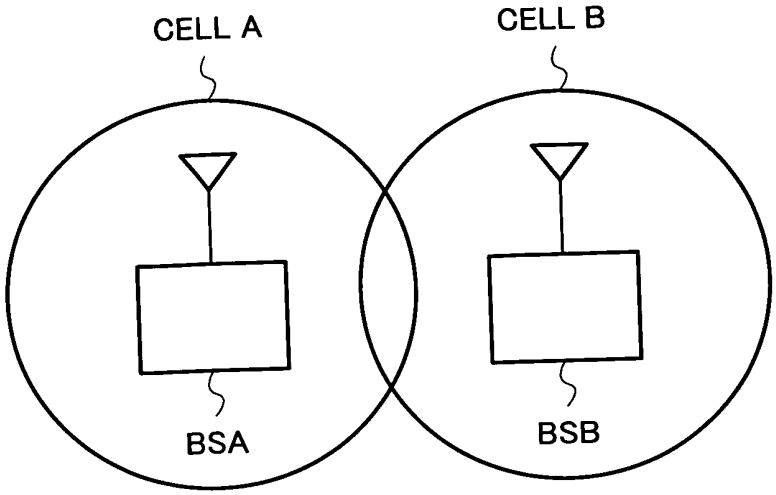
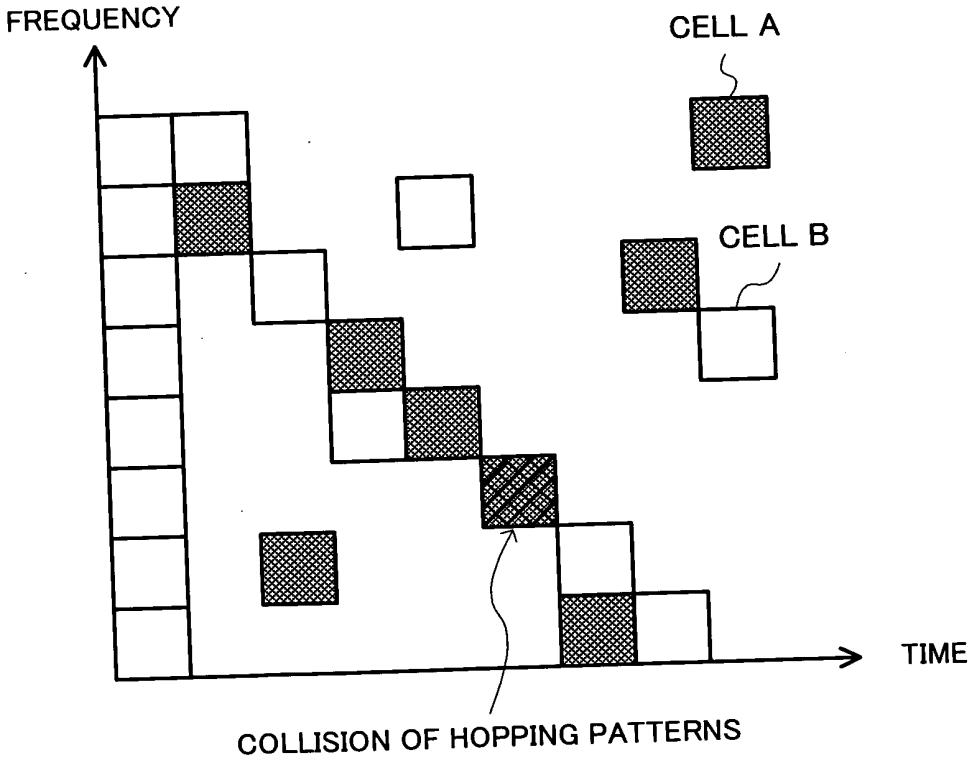


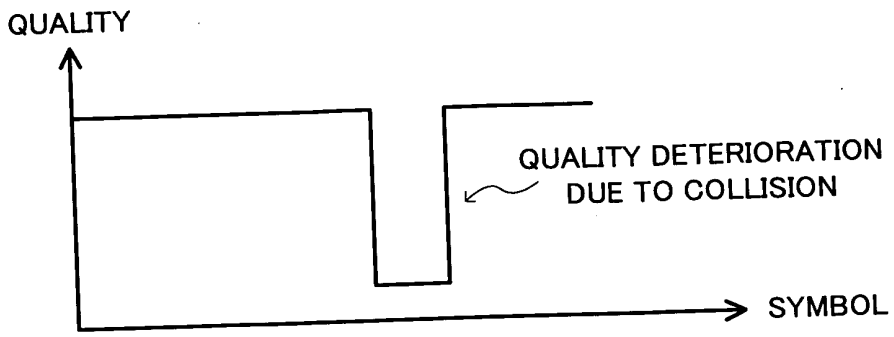
(PRIOR ART)

FIG.1



(PRIOR ART)

FIG.2



(PRIOR ART)

FIG.3

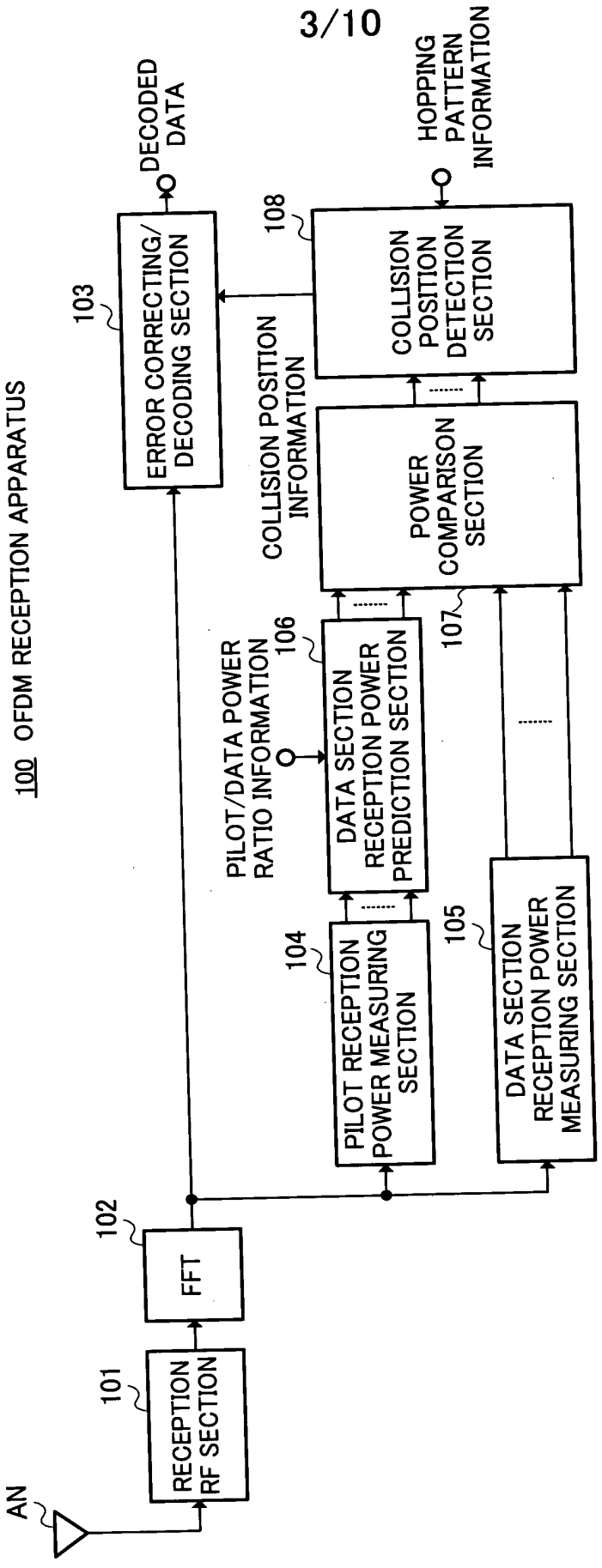

100 OFDM RECEPTION APPARATUS
AN
RECEPTION RF SECTION
101
FFT
102
ERROR CORRECTING/ DECODING SECTION
103
DECODED DATA
PILOT RECEPTION POWER MEASURING SECTION
104
DATA SECTION RECEPTION POWER MEASURING SECTION
105
PILOT/DATA POWER RATIO INFORMATION
DATA SECTION RECEPTION POWER PREDICTION SECTION
106
POWER COMPARISON SECTION
107
COLLISION POSITION INFORMATION
COLLISION POSITION DETECTION SECTION
108
HOPPING PATTERN INFORMATION

FIG.4

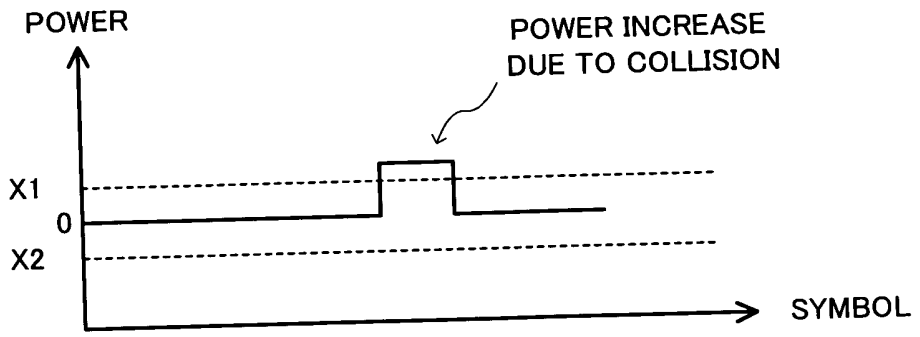

POWER
POWER INCREASE
DUE TO COLLISION
X1
0
X2
SYMBOL

FIG.5

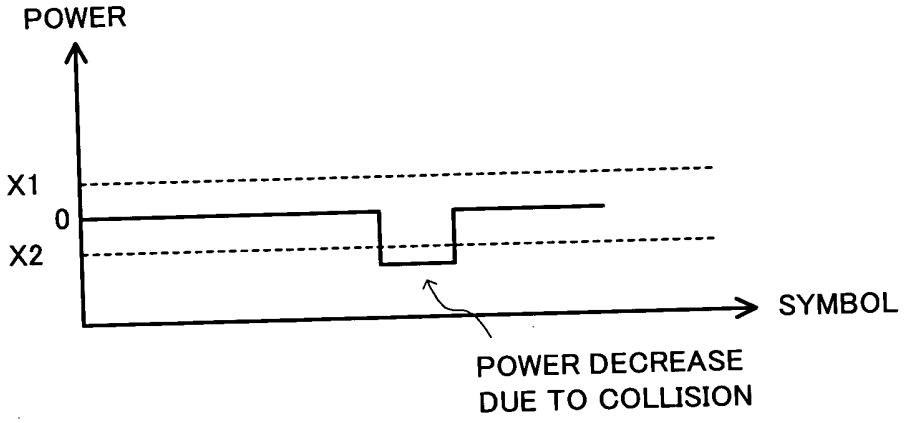

POWER
X1
0
X2
SYMBOL
POWER DECREASE
DUE TO COLLISION

FIG.6

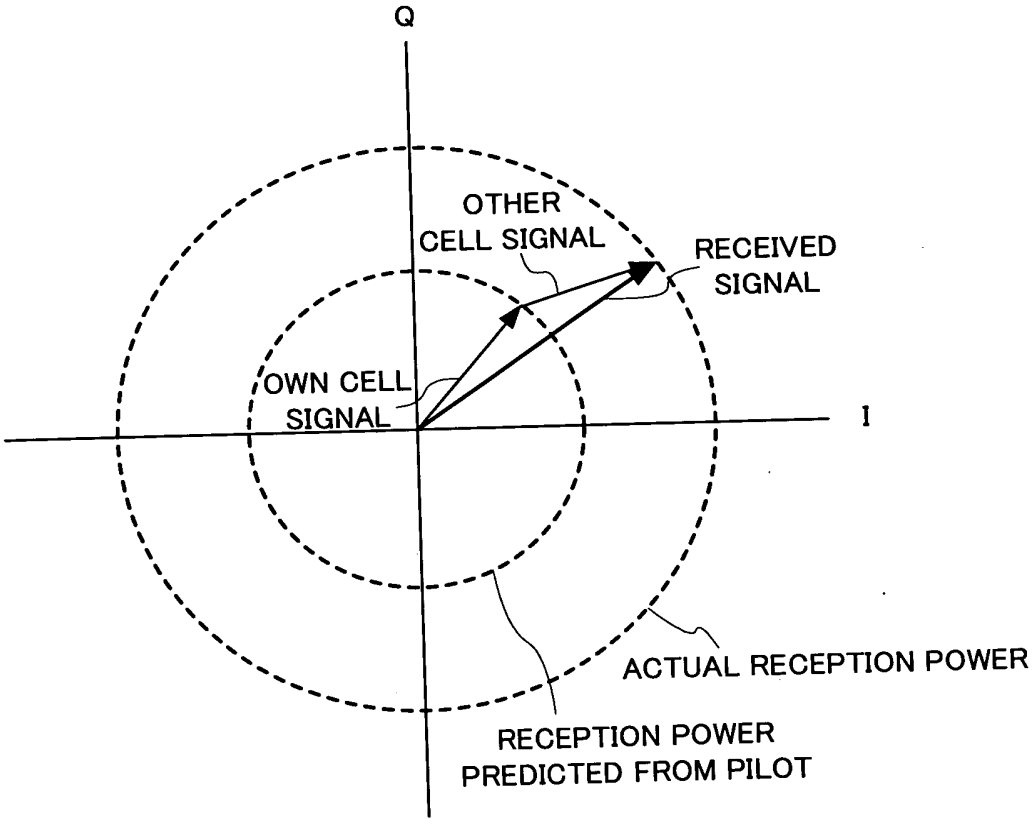

Q
OTHER
CELL SIGNAL
RECEIVED
SIGNAL
OWN CELL
SIGNAL
I
ACTUAL RECEPTION POWER
RECEPTION POWER
PREDICTED FROM PILOT

FIG.7

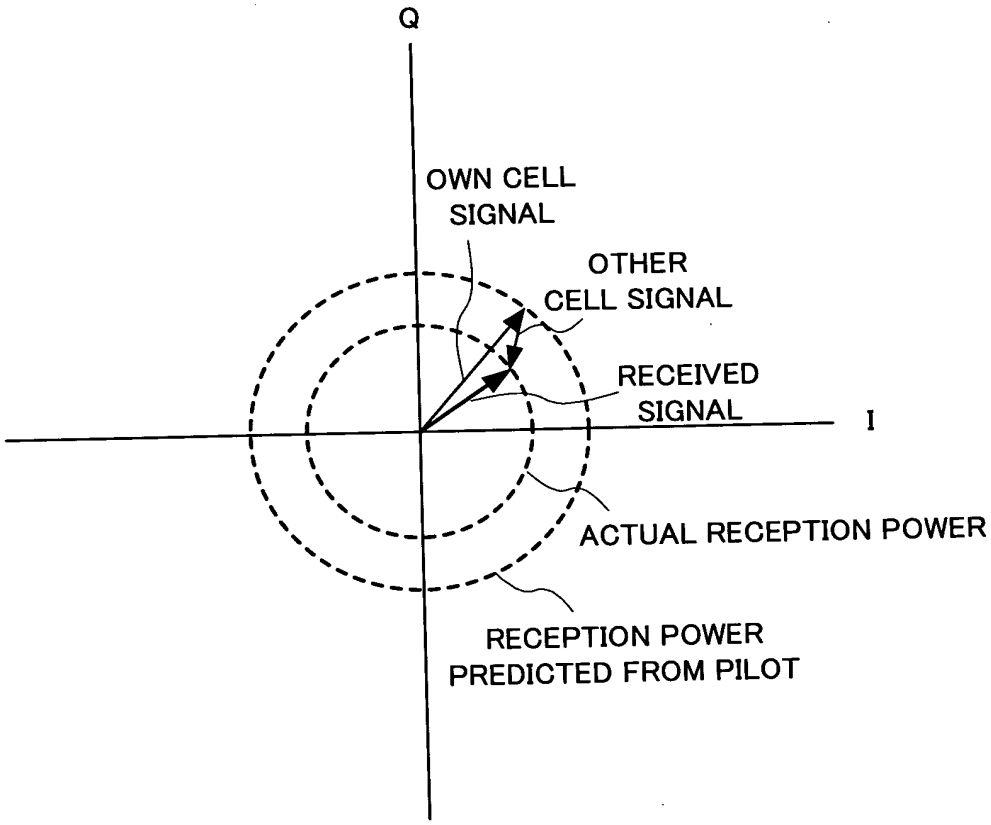

Q
OWN CELL SIGNAL
OTHER CELL SIGNAL
RECEIVED SIGNAL
I
ACTUAL RECEPTION POWER
RECEPTION POWER PREDICTED FROM PILOT

FIG.8

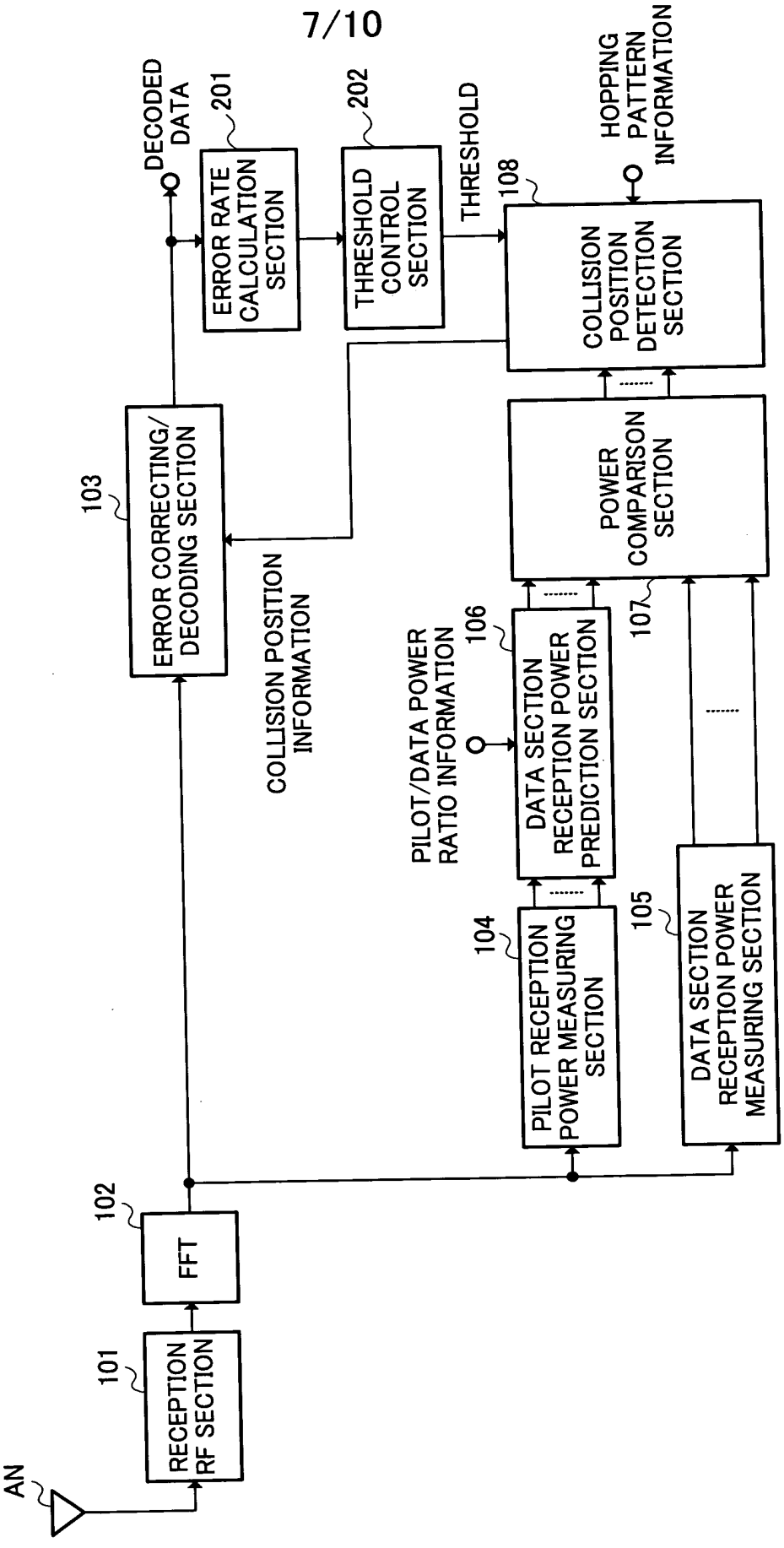

200 OFDM RECEPTION APPARATUS
AN
RECEPTION RF SECTION
101
FFT
102
ERROR CORRECTING/ DECODING SECTION
103
PILOT RECEPTION POWER MEASURING SECTION
104
DATA SECTION RECEPTION POWER MEASURING SECTION
105
DATA SECTION RECEPTION POWER PREDICTION SECTION
106
POWER COMPARISON SECTION
107
COLLISION POSITION DETECTION SECTION
108
ERROR RATE CALCULATION SECTION
201
THRESHOLD CONTROL SECTION
202
DECODED DATA
PILOT/DATA POWER RATIO INFORMATION
COLLISION POSITION INFORMATION
THRESHOLD
HOPPING PATTERN INFORMATION

FIG.9

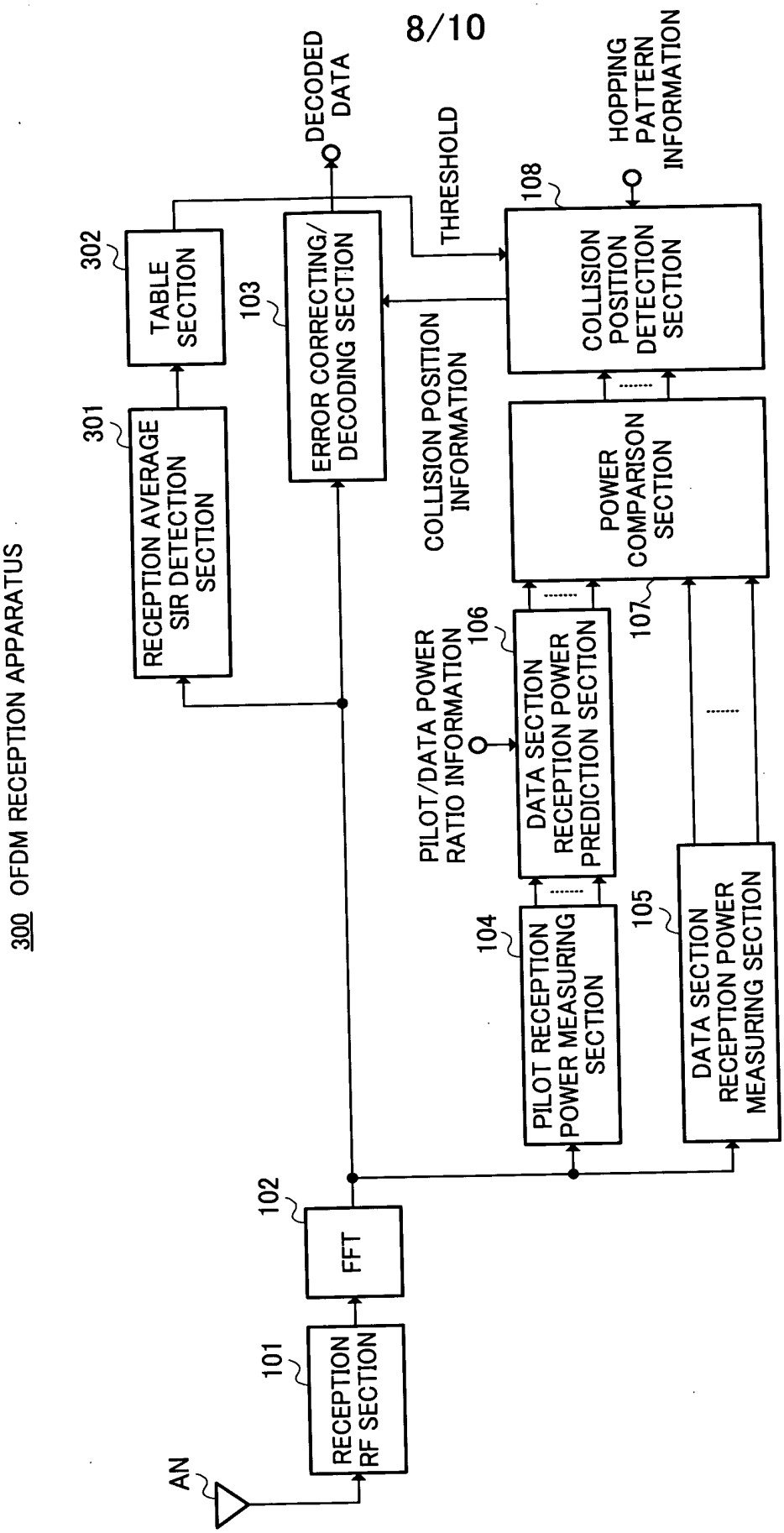

300 OFDM RECEPTION APPARATUS
AN
101
RECEPTION RF SECTION
102
FFT
104
PILOT RECEPTION POWER MEASURING SECTION
105
DATA SECTION RECEPTION POWER MEASURING SECTION
106
DATA SECTION RECEPTION POWER PREDICTION SECTION
107
POWER COMPARISON SECTION
108
COLLISION POSITION DETECTION SECTION
HOPPING PATTERN INFORMATION
PILOT/DATA POWER RATIO INFORMATION
COLLISION POSITION INFORMATION
301
RECEPTION AVERAGE SIR DETECTION SECTION
302
TABLE SECTION
103
ERROR CORRECTING/ DECODING SECTION
THRESHOLD
DECODED DATA

FIG.10

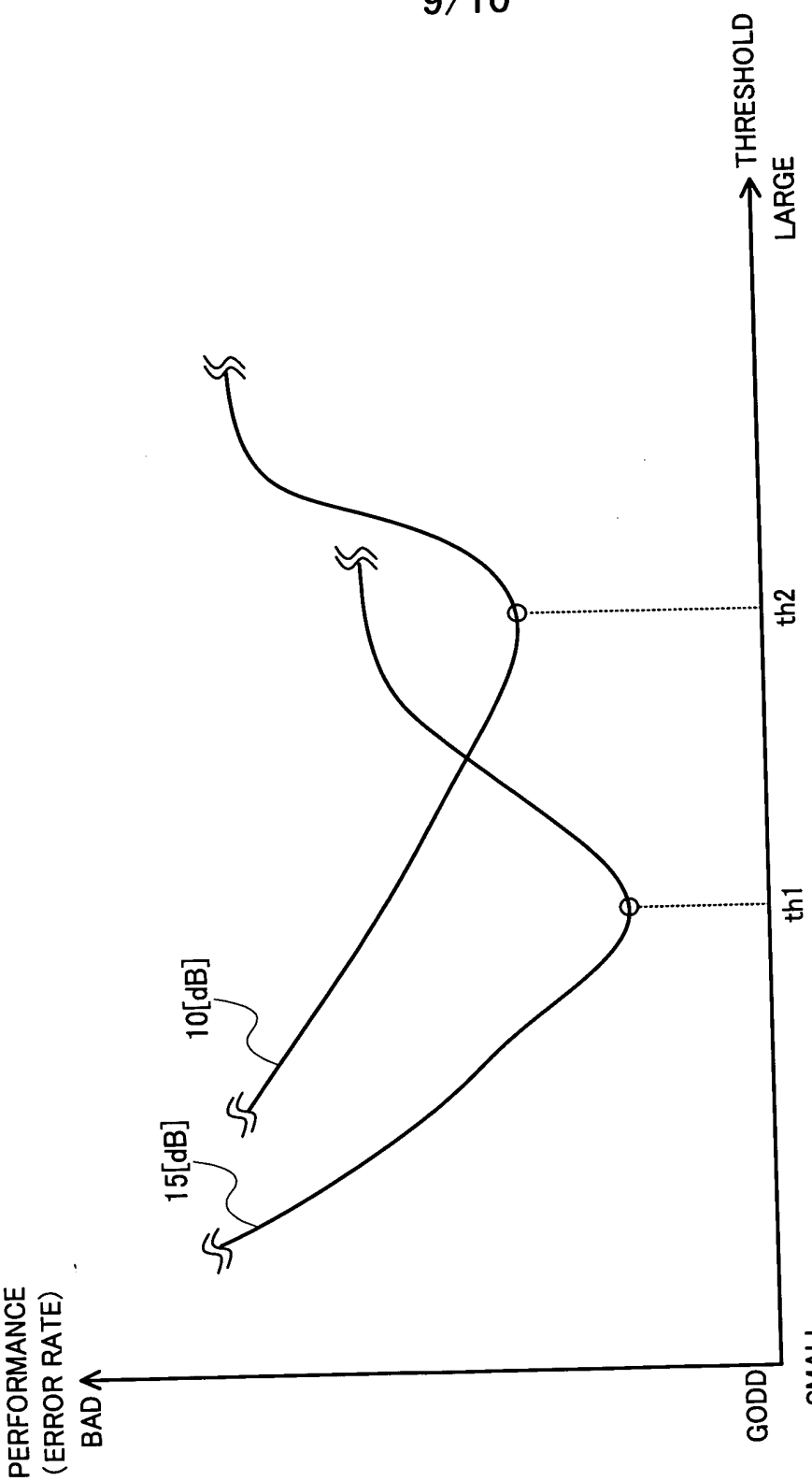

PERFORMANCE
(ERROR RATE)
BAD
GODD
SMALL
LARGE
THRESHOLD
th1
th2
10[dB]
15[dB]

FIG.11

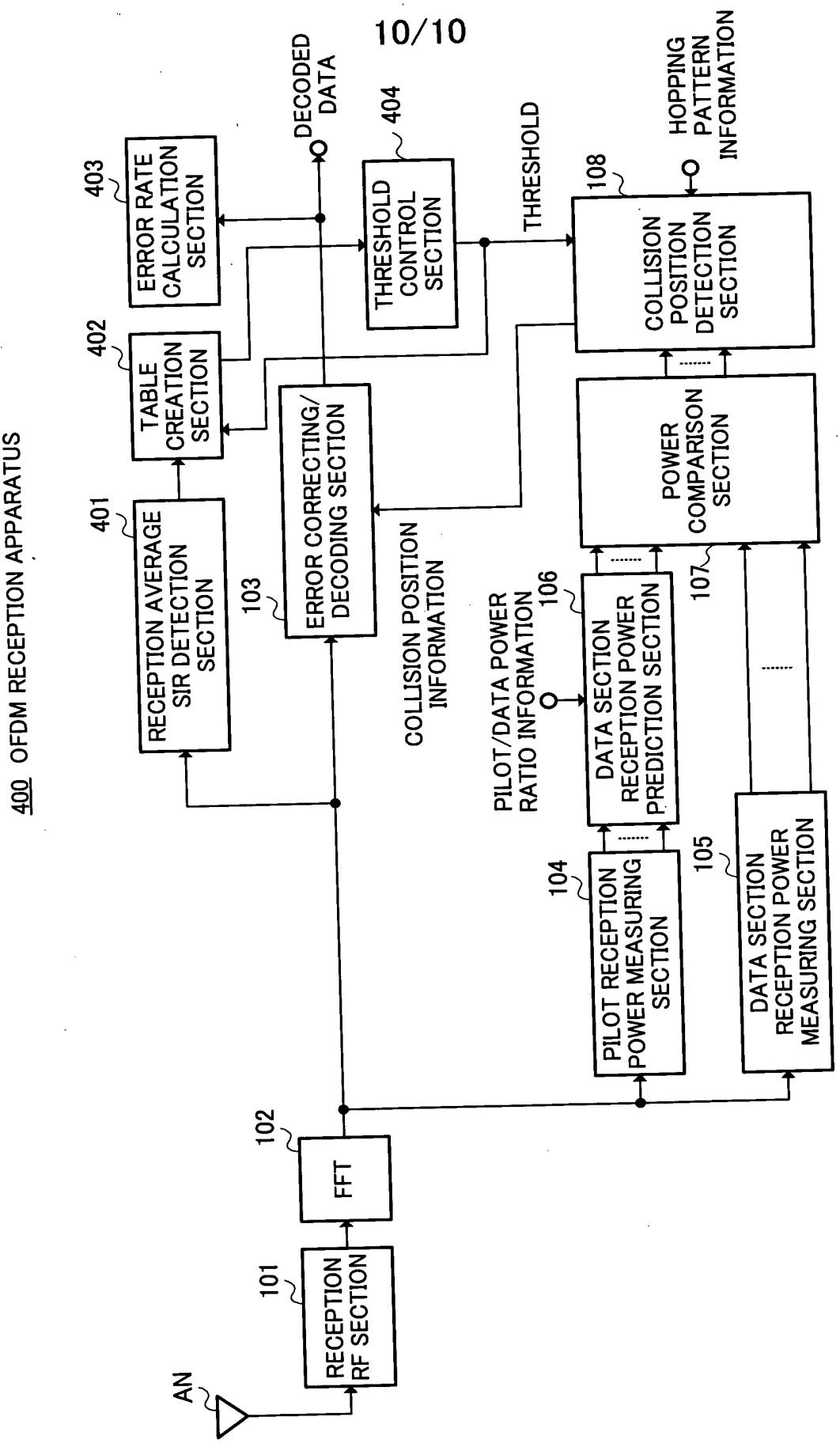

400 OFDM RECEPTION APPARATUS
AN
101
RECEPTION RF SECTION
102
FFT
103
ERROR CORRECTING/ DECODING SECTION
104
PILOT RECEPTION POWER MEASURING SECTION
105
DATA SECTION RECEPTION POWER MEASURING SECTION
106
DATA SECTION RECEPTION POWER PREDICTION SECTION
107
POWER COMPARISON SECTION
108
COLLISION POSITION DETECTION SECTION
401
RECEPTION AVERAGE SIR DETECTION SECTION
402
TABLE CREATION SECTION
403
ERROR RATE CALCULATION SECTION
404
THRESHOLD CONTROL SECTION
DECODED DATA
THRESHOLD
HOPPING PATTERN INFORMATION
COLLISION POSITION INFORMATION
PILOT/DATA POWER RATIO INFORMATION

FIG.12